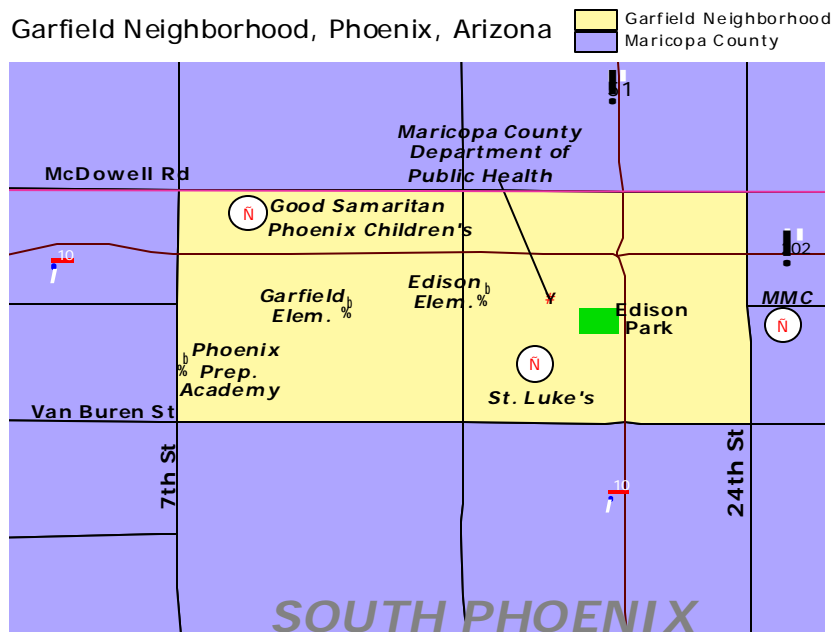


Section VII. Garfield Area Analysis

INTRODUCTION

The Garfield Neighborhood of Phoenix, Arizona consists of 1990 census tracts 1132 and 1133 (2000 census, tracts 1132.01, 1132.02, 1132.03, and 1133), located immediately east of downtown Phoenix. The area is bounded by McDowell Road on the north, Van Buren Street on the south, 7th Street on the west, and 24th Street on the east. The Garfield community is a historic district in the Phoenix metropolitan area²¹. See Appendix A, Map 3 for a larger map of the Garfield Neighborhood and where it lies within the county.



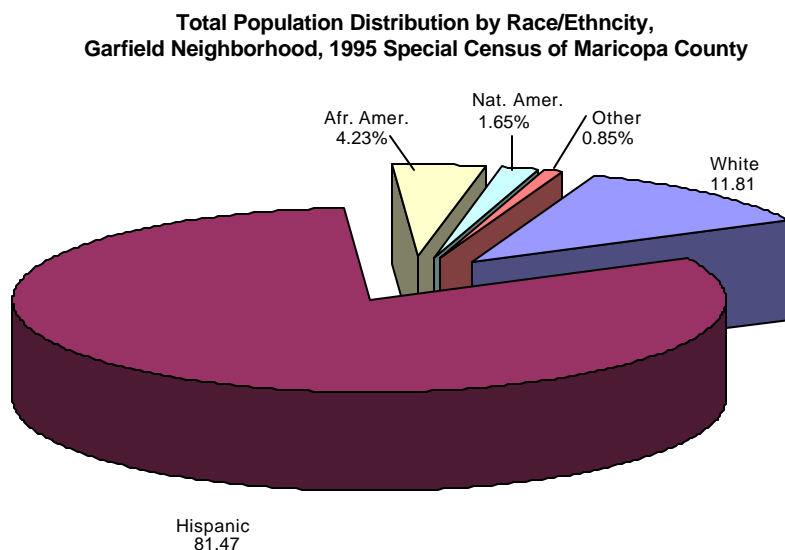
In 1999, the Garfield Neighborhood was identified as a 'pocket of need' within Maricopa County. During the summer of 2001, the Garfield Neighborhood Association formed a Health and Human Service Committee to strategize interventions for the health needs of their community. Data from the Maricopa County Department of Public Health and students of Arizona State University are being used to guide this planning process. This collaboration includes representatives from the city of Phoenix, Banner Health, Garfield Elementary School, Phoenix Children's Hospital, Maricopa County Department of Public Health, ASU College of Nursing, a private physician, and community members. The vision is to have low- or no-cost culturally sensitive primary care services located within the neighborhood. This service would be linked to a host of other social and specialty-care services outside of the neighborhood and would have an outreach component to ensure the utilization of services. This needs assessment is intended to provide the Garfield Neighborhood with the information necessary to allow the community to have the biggest impact on health disparities within its borders.

Due to relatively small numbers of births within the Garfield Neighborhood, data are often presented as four-year averages (1996-1999) to provide a larger sample. The larger sample provides more meaningful information, which can then be more accurately compared to Maricopa County and other geographic areas. Nevertheless, use caution when examining and interpreting the results because some percentages and/or rates may be based on numbers too small to be meaningful. The numbers used for each graph appear in tables in the "Maricopa

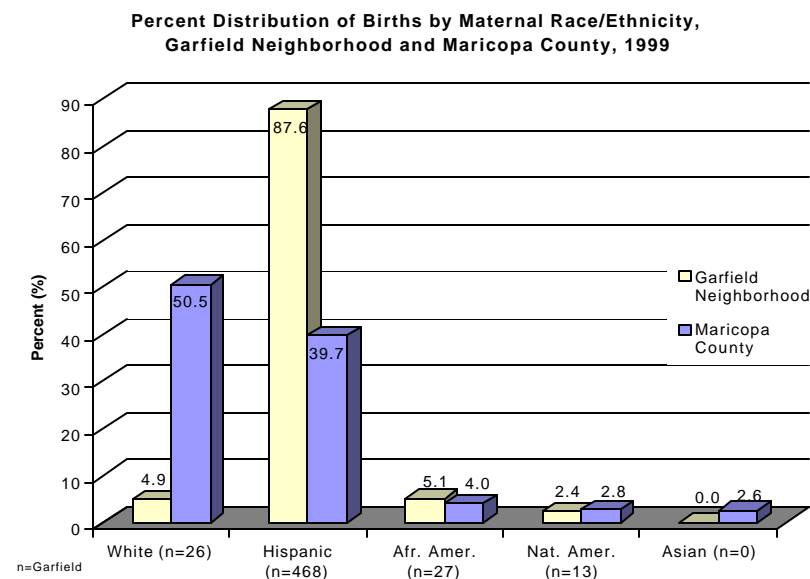
County Maternal and Child Health Needs Assessment 2001: Supplemental Data Tables”.

SOCIAL AND DEMOGRAPHIC PROFILE

There were 14,978 people living in the Garfield Neighborhood according to the 1995 special census of Maricopa County ¹¹, representing 0.6% of the county population; 48.28% were female. In 1995, Hispanics made up the largest percentage of the Garfield population, accounting for 81.47%, followed by Whites (11.81%). This contrasted the racial/ethnic distribution of the county population, which was predominantly White (71.91%); Hispanics constituted 20.48% of Maricopa County’s population. Broken down by age group, the Garfield Neighborhood had a larger proportion of young people (21 years of age and younger) compared to the county (data not shown).



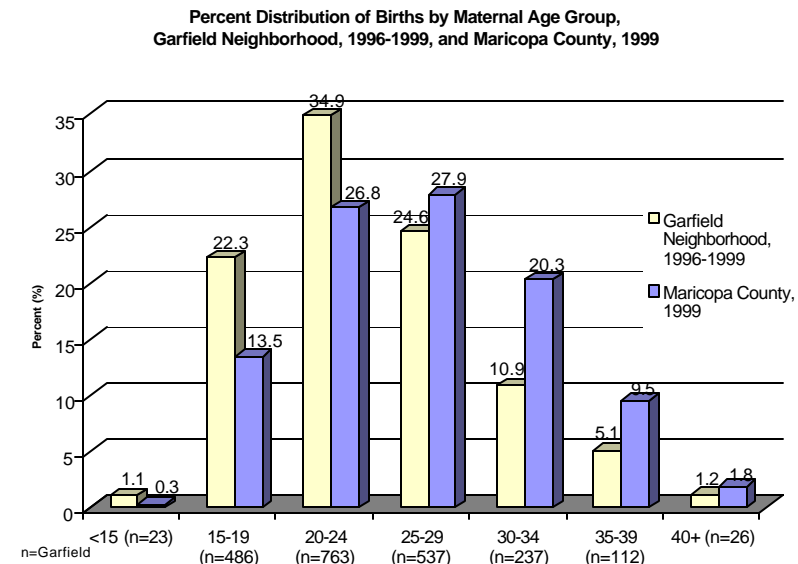
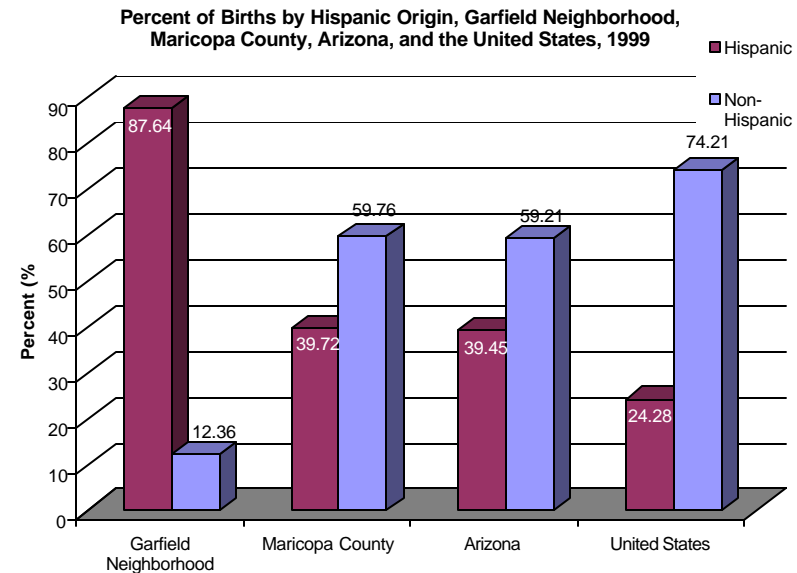
In 1999, there were 534 births in the Garfield Neighborhood, a 2.7% decrease from 1998. Maricopa County experienced a 4.5% increase in the number of births over the same period. Similar to the distribution pattern of the entire population, Hispanics made up the largest proportion of mothers in the Garfield Neighborhood (87.64%; 468 births in 1999). 4.87% of births were to White mothers (26 births in 1999); 5.06% to African American mothers (27 births in 1999); and 2.43% to Native American mothers (13 births in 1999). In Maricopa County, Whites made up the largest percentage of mothers (50.47%) followed by Hispanics (39.72%). Because of the small number of births, Asian mothers in the Garfield Neighborhood are frequently not depicted in graphs (2 births from 1996 to 1999).



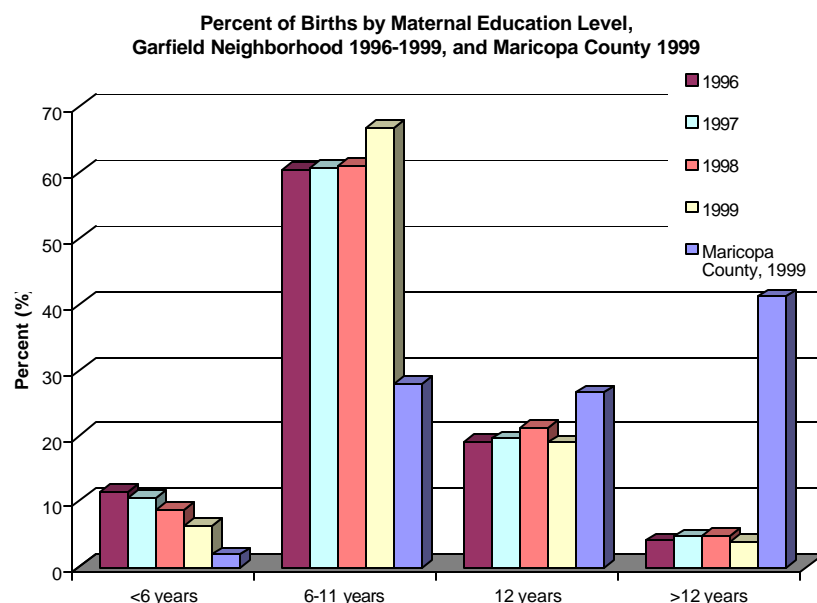
Birth rates by race/ethnicity could not be calculated because census tract-level data of the population by race/ethnicity were not available. However, there was a smaller percentage of White mothers than Whites in the entire population in both the Garfield Neighborhood and Maricopa County, implying a lower birth rate. Similarly, there was a larger percentage of Hispanic mothers than Hispanics in the entire population, implying a higher birth rate.

Notable is the difference in the ethnic distribution of mothers in the Garfield Neighborhood from all other geographic areas. As previously noted, Hispanics made up the largest percentage of mothers in the Garfield Neighborhood (87.64%; 468 births) in 1999. However, in the Maricopa County, Arizona, and United States populations, Non-Hispanics made up the largest percentage of mothers (59.76%, 59.21%, and 74.21% in 1999, respectively).

Summing births from 1996 through 1999, the highest proportion of births in the Garfield Neighborhood was to mothers 20 to 24 years of age (34.94%; 763 births) followed by mothers 25 to 29 years of age (24.59%; 537 births). In 1999, the highest proportion of births in Maricopa County was to mothers 25 to 29 years of age (27.85%; 53,720 births) followed by mothers 20 to 24 years of age (26.75%; 52,280 births). As in the population distribution of the Garfield Neighborhood, there was a larger percentage of mothers in younger age groups in the Garfield Neighborhood than in Maricopa County.

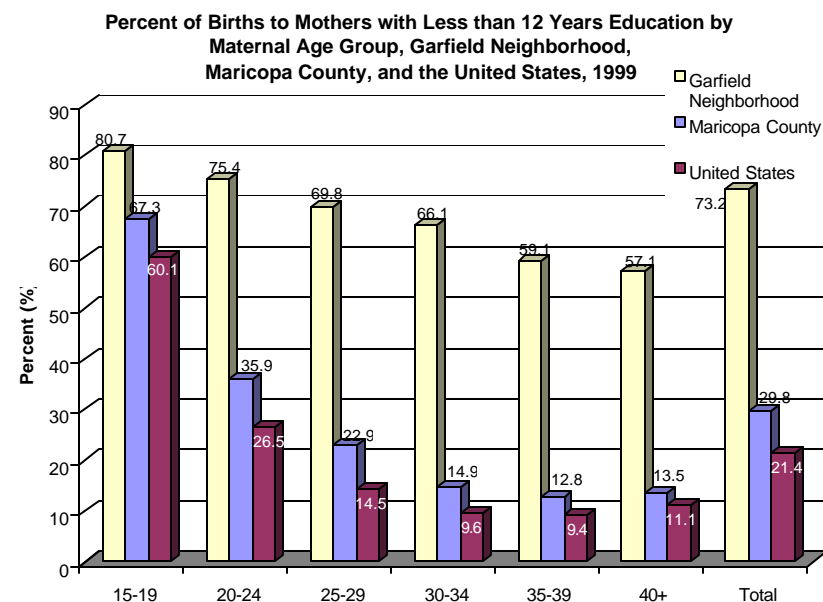


The Garfield Neighborhood consistently had a higher percentage of mothers who did not finish high school (less than 12 years of education) compared to Maricopa County (71.57% and 29.06% respectively, 1996-1999). During the years 1996 to 1999, the majority of mothers in the Garfield Neighborhood had 6 to 11 years of education (62.27%; 1360 births); countywide, the highest percentage of births by education was to mothers with more than 12 years of education (41.11%).



African Americans and Hispanics had the largest proportion of mothers with less than 12 years of education in the Garfield Neighborhood. White and Native American mothers were more likely to achieve 12 or more years of education (data not shown).

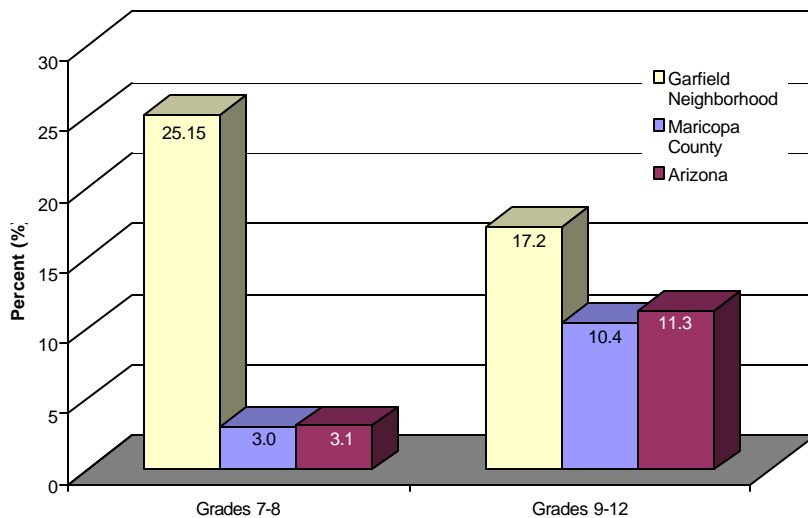
Across all age groups, mothers in the Garfield Neighborhood were less likely to have finished high school, compared to Maricopa County and the United States.



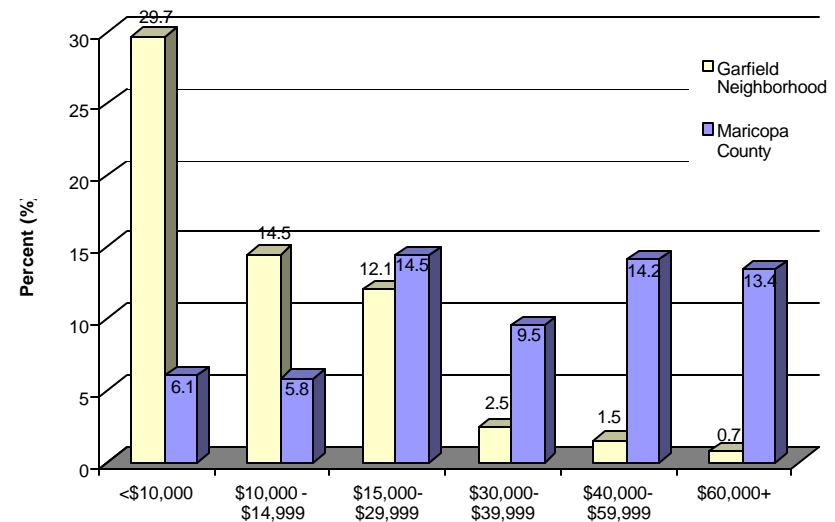
The Garfield Neighborhood dropout rate for grades 7 and 8 consisted of the averaged dropout rates of the two middle schools that lie within the Garfield Neighborhood: Alternative Learning Center and Phoenix Elementary Preparatory Academy¹⁹. The dropout rate for grades 9 to 12 consisted of the dropout rates of three schools attended by Garfield residents (Camelback, South Mountain, and North High Schools) and the one high school within the Garfield Neighborhood (Summit High School). Dropout rates for schools serving the Garfield Neighborhood²¹ were approximately 8 times those of the county and state¹⁹ for grades 7 and 8, and 1.5 times for grades 9 to 12.

4,140 households were recorded in the Garfield Neighborhood in 1995¹¹, compared to 957,730 in Maricopa County. The highest percentage of the Garfield Neighborhood population earned less than \$10,000 per household (29.66%) followed by \$10,000 to \$14,999 (14.47%). In Maricopa County, the highest percentage of the population earned \$15,000 to \$29,999 (14.46%) followed by \$40,000 to \$59,999 (14.16%). Only 0.72% of the households in the Garfield Neighborhood earned \$60,000 or more, compared to 13.43% of the households in Maricopa County. In the Garfield Neighborhood, 44.13% of households earned less than \$15,000, while in Maricopa County, only 11.94% of households earned less than \$15,000.

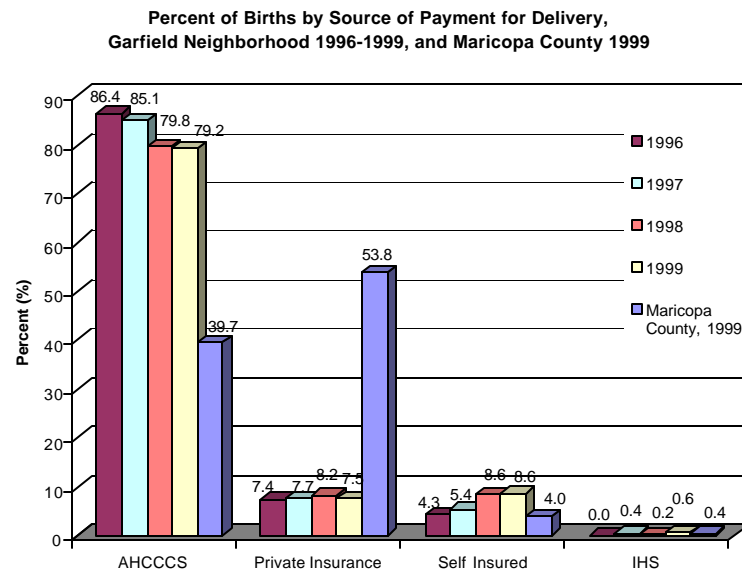
Dropout Rates, Grades 7-8 and 9-12, Garfield Neighborhood, Maricopa County, and Arizona, 1999-2000 School Year



Percent Distribution of Household Income, Garfield Neighborhood and Maricopa County, 1995



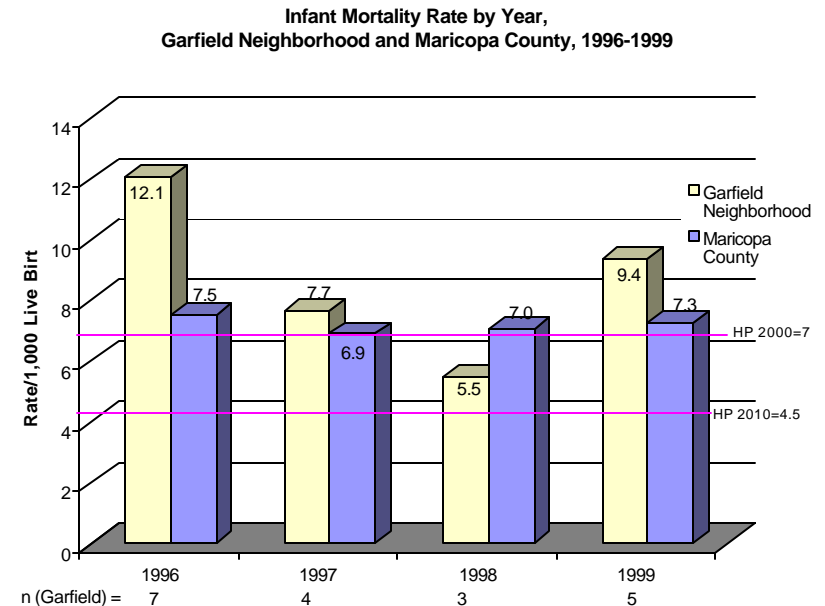
A consistently higher percentage of births were paid for by AHCCCS in the Garfield Neighborhood (79.21% in 1999; 423 births) than in Maricopa County (39.67% in 1999; 20,446 births). While the percent of births paid for by AHCCCS in the Garfield Neighborhood decreased from 1996 to 1999, the percent of self-pay births increased.



During the period 1996 to 1999, both census tracts comprising the Garfield Neighborhood fell into the highest category of the percent of births paid for by AHCCCS (82.37%, 1,333 births in census tract 1132 and 83.08%, 851 births in census tract 1133). The Scottsdale/Paradise Valley, East Valley, and Sun Cities areas made up the majority of the lowest category of births paid for by AHCCCS (less than 35.0%). Appendix A, Map 4 details the percent of births paid for by AHCCCS, by census tract.

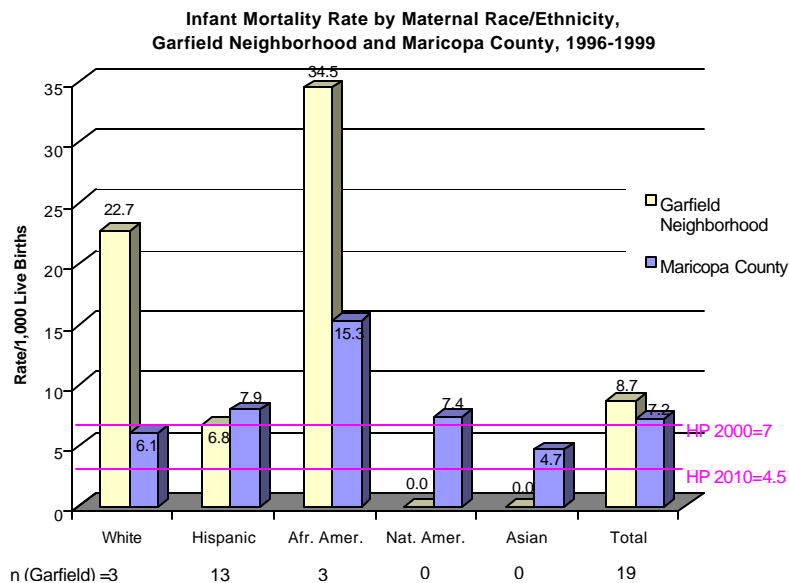
INFANT MORTALITY RATES

Because of the small number of infant deaths, the majority of data presented are an average of the four years (1996-1999). All infant mortality rates (IMRs) are per 1,000 live births. From 1996 to 1999, there were 19 infant deaths in the Garfield Neighborhood, yielding an IMR of 8.70 per 1,000 live births. 10 were neonatal deaths (less than 28 days after delivery), yielding a neonatal mortality rate (NMR) of 4.58, and 9 were post-neonatal, yielding a post-neonatal mortality rate (PNMR) of 4.12. In contrast to the other years presented, in 1998, the Garfield Neighborhood had a lower IMR than Maricopa County.

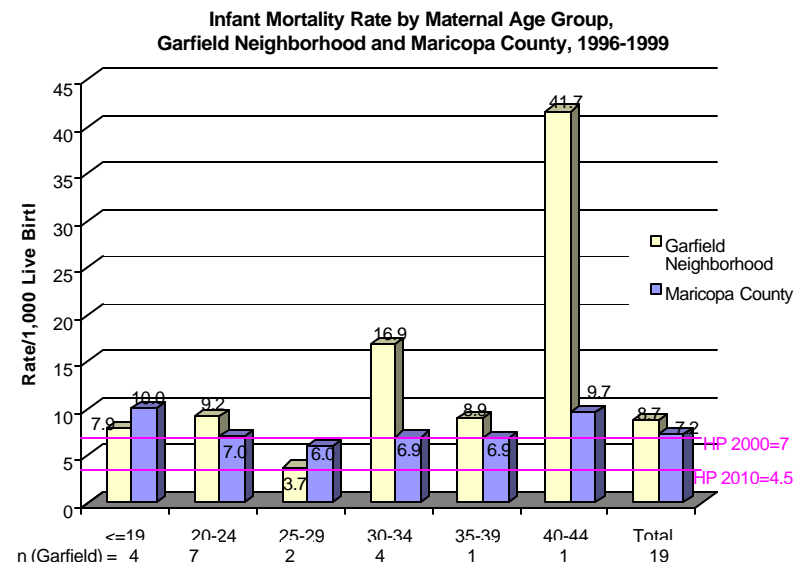


During the period 1996 to 1999, the census tracts that made up the Garfield Neighborhood were not in the highest IMR category; however, the Garfield Neighborhood did not meet the HP 2000 nor HP 2010 objectives for infant mortality. The census tracts had IMRs of 7.50 (census tract 1132; 851 births and 10 deaths) and 10.58 (census tract 1133; 1,333 births and 9 deaths). See Appendix A, Map 5 for IMR by census tract.

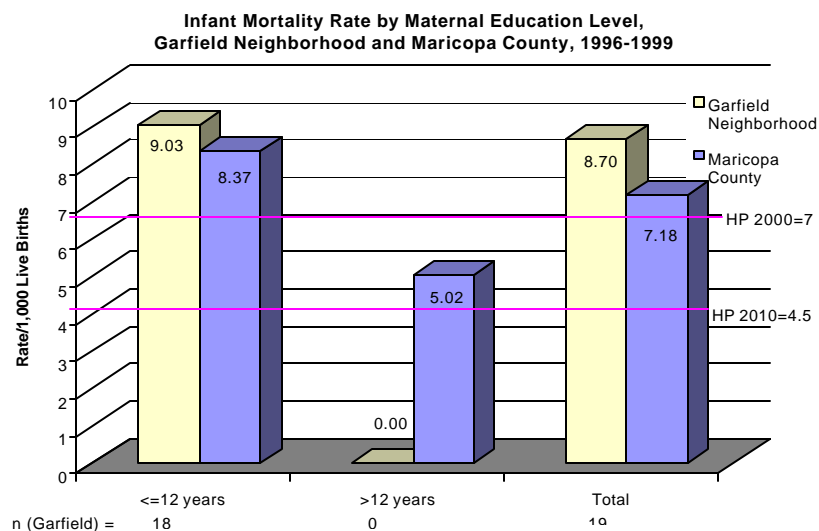
African Americans had the highest IMR in both the Garfield Neighborhood (34.48) and Maricopa County (15.31), followed in the Garfield Neighborhood by Whites (22.73) and in Maricopa County by Hispanics (7.94). It should be noted that the IMR for Whites and African Americans are highly unstable, due to small numbers of infant deaths.



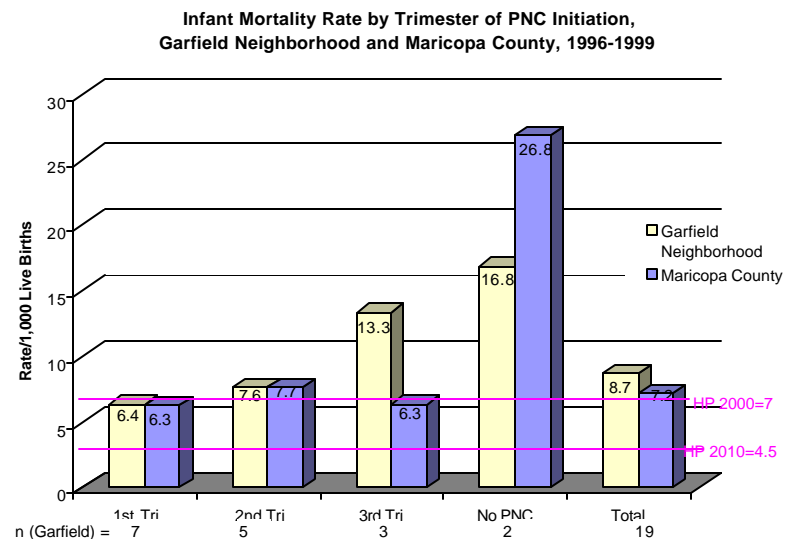
Teenage mothers (19 years of age and younger) in the Garfield Neighborhood had a lower IMR (7.86; 4 deaths) than teenage mothers in Maricopa County (10.01; 272 deaths). Also, mothers 25 to 29 years of age in the Garfield Neighborhood had a lower IMR (3.72; 2 deaths) than mothers of the same age group in Maricopa County (6.03; 324 deaths). The IMR for mothers 40 to 44 years of age is unstable because of small numbers of both infant births (24) and deaths (1).



In the Garfield Neighborhood, mothers with a high school education or less had an IMR of 9.03 (1996-1999). There were no infant deaths in the Garfield Neighborhood among births to mothers who had more than 12 years of education, but the number of births was small (94).

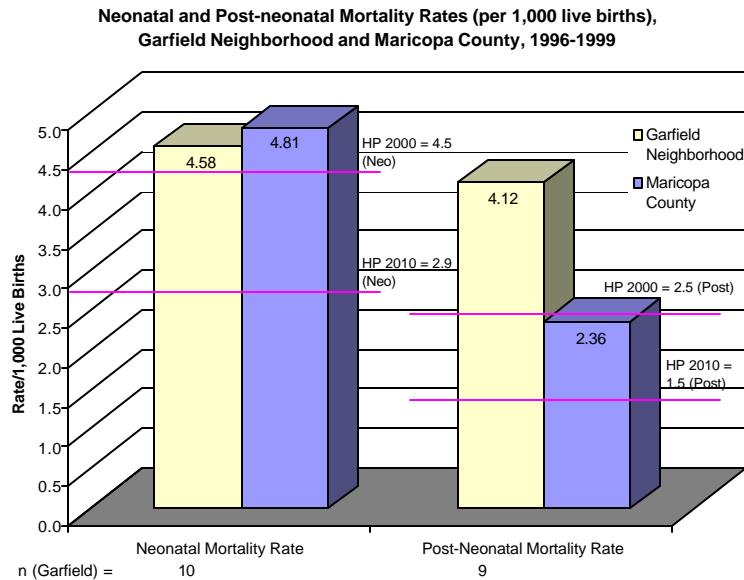


Mothers who received no prenatal care had the highest IMR in both the Garfield Neighborhood (16.81) and Maricopa County (26.83).



Whites and African Americans in the Garfield Neighborhood had the highest neonatal and post-neonatal mortality rates. Whites had a rate of 15.15 and 7.58 for neonatal and post-neonatal mortality respectively, while African Americans had rates of 11.49 and 22.99. Countywide, Hispanics and African Americans had the highest rates for both neonatal and post-neonatal mortality (data not shown).

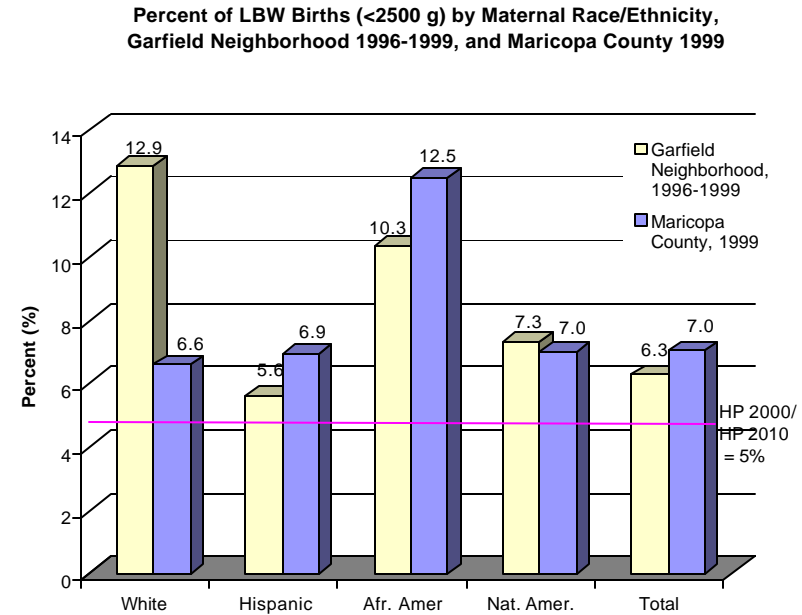
The Garfield Neighborhood had a higher rate of post-neonatal mortality than the county. The distribution of the neonatal mortality rate and post-neonatal mortality rate was contrary to expectations. While neonatal deaths make up two-thirds of infant deaths nationally¹², they made up only 52.63% in the Garfield Neighborhood. This pattern usually indicates social and other risk factors associated with the infant's environment, rather than pregnancy and delivery risk factors.



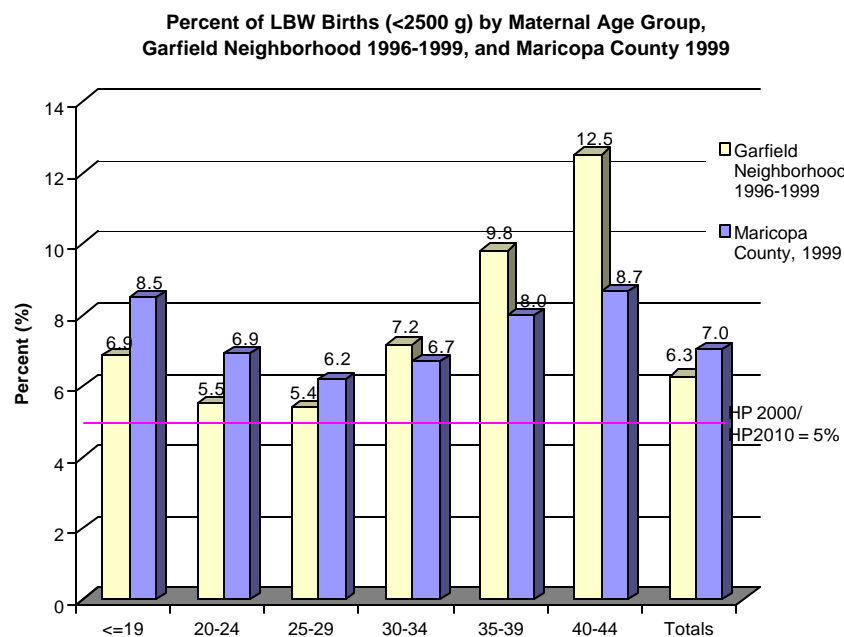
LOW BIRTH WEIGHT AND PRETERM BIRTHS

The percent of low birth weight births (less than 2500 grams) in the Garfield Neighborhood has been increasing since 1996. In 1999, 7.49% of births in the Garfield Neighborhood were LBW (40), compared to 7.02% of births in Maricopa County (3,619). A map showing the distribution of LBW births by census tract is found in Appendix A (Map 6).

Whites had the highest percentage of LBW births in 1999 (19.23%). None of the racial/ethnic groups met the HP 2000 and 2010 objective of 5.0%, and the Garfield Neighborhood as a whole has been moving further away from the objective (data not shown).

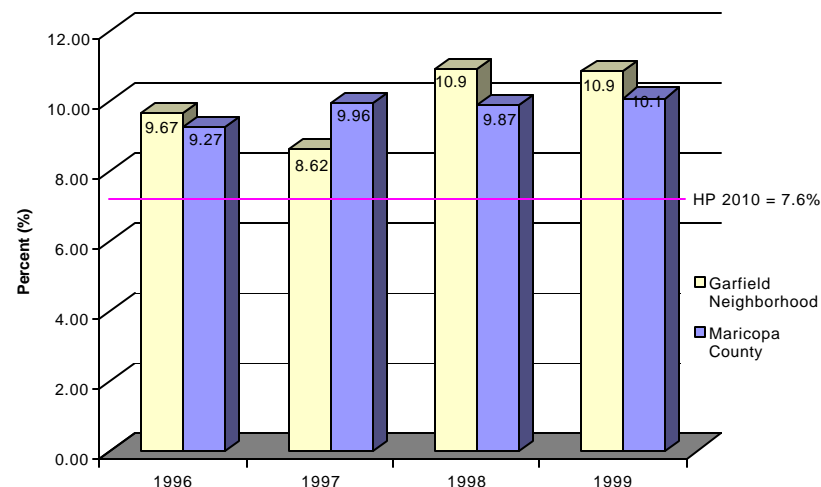


The percentage of LBW births by maternal age follows the typical *j*-shaped curve in the Garfield Neighborhood over the years of 1996 to 1999, with women 30 years of age and older having a higher percentage of LBW births in the Garfield Neighborhood compared to Maricopa County (1999).

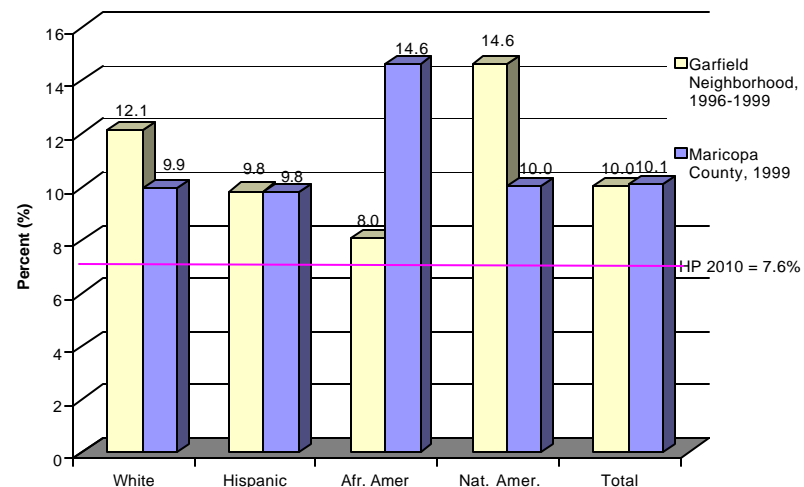


In 1999, 10.86% of the Garfield Neighborhood births were preterm (58 births); 10.08% of Maricopa County births were preterm (5197 births). The percentage of preterm births (less than 37 weeks of gestation) in the Garfield Neighborhood was higher than that in the county for three of the four years (1996 to 1999). This is in contrast with the percentage of LBW births, for which the Garfield Neighborhood was higher than the county average for only 1999 (data not shown).

Percent of Preterm Births (<37 Weeks Gestation), Garfield Neighborhood and Maricopa County, 1996-1999

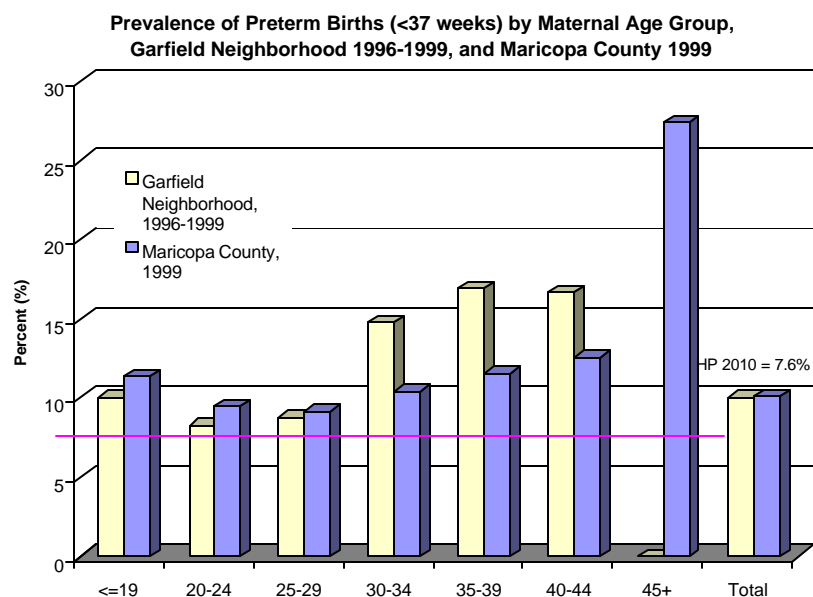


Prevalence of Preterm Births (<37 weeks) by Maternal Race/Ethnicity, Garfield Neighborhood 1996-1999, and Maricopa County 1999



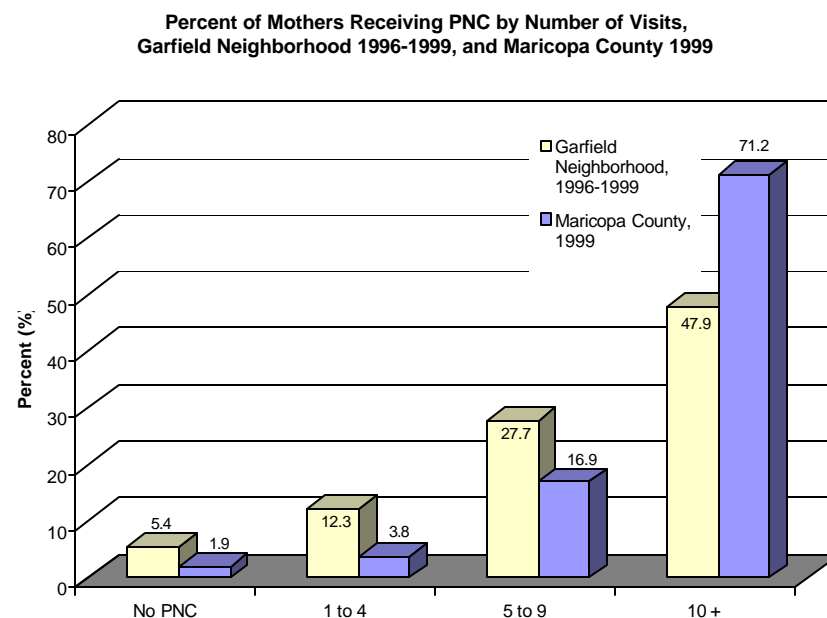
In contrast to the pattern seen among LBW births, Native Americans and Whites delivered the highest percentage of preterm births in the Garfield Neighborhood (preceding graph). African Americans had a lower percentage of preterm births in the Garfield Neighborhood than did Hispanics. However, caution should be exercised in interpreting these results, given that the total numbers of LBW births in each group are low.

Looking at preterm births by maternal age group, the *j*-shaped curve is again evident, with older women delivering a higher percentage of preterm births in both the Garfield Neighborhood and Maricopa County.

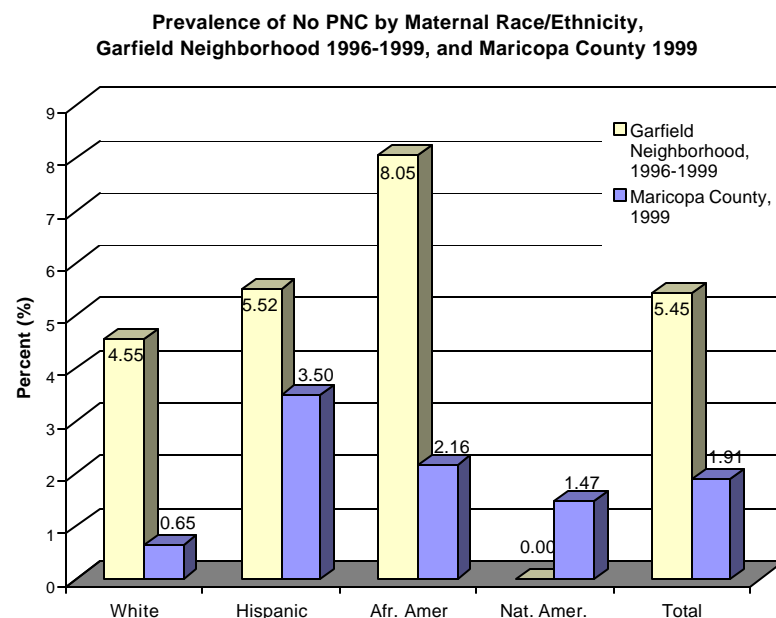


PRENATAL CARE

The Garfield Neighborhood had a higher percentage of women delivering with no PNC or fewer than ten visits during 1996 to 1999 (45.42%, 992 births) than Maricopa County did in 1999 (22.61%, 11,653 births). This was true across all age groups and racial ethnic groups (data not shown).



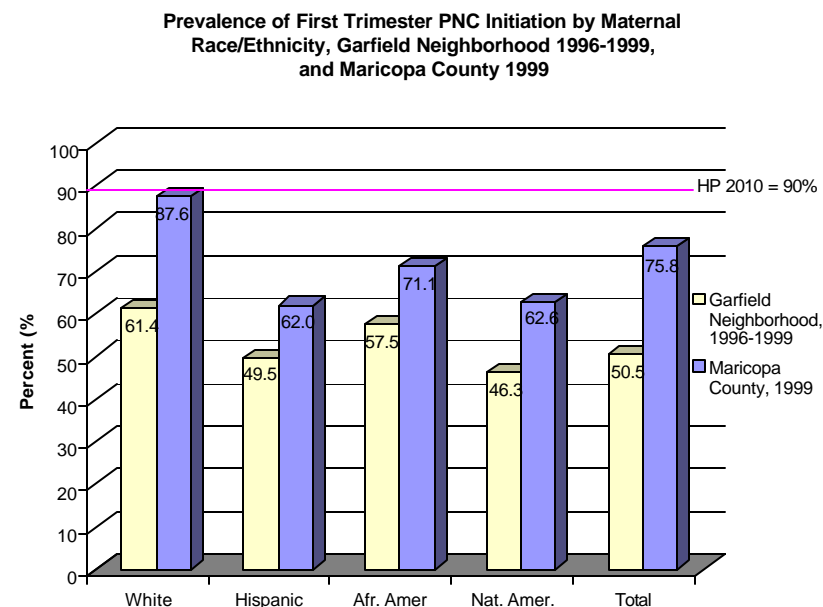
During 1996 to 1999 in the Garfield Neighborhood, African Americans had the highest prevalence of births to women receiving no PNC (8.05%; 7 births), followed by Hispanics (5.52%; 106 births) and Whites (4.55%; 6 births). From 1996 to 1999, all Native American mothers (41) received PNC.



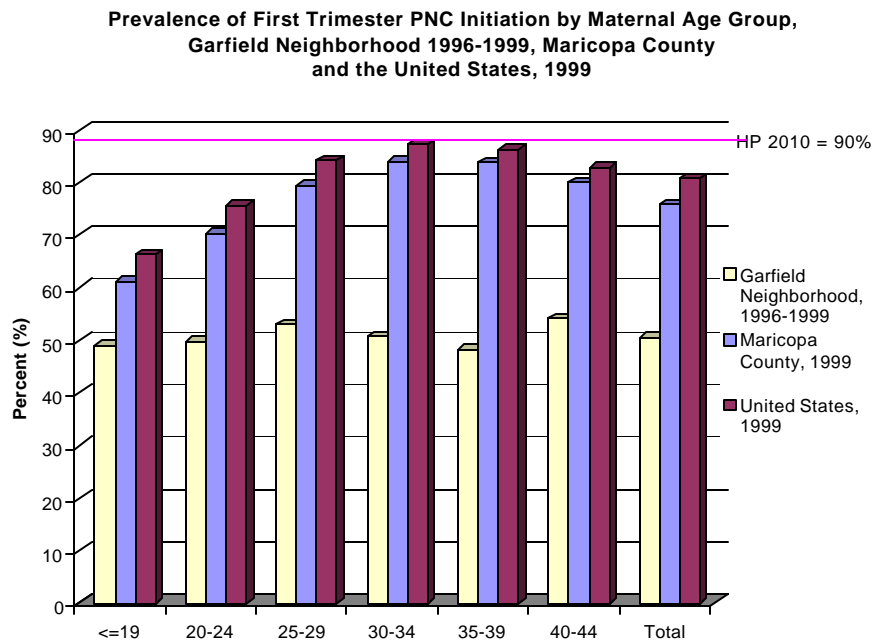
Appendix A, Map 7 depicts the percentage of mothers receiving no PNC by census tract.

In 1999, 48.88% of mothers in the Garfield Neighborhood began PNC during the first trimester (261 mothers), compared to 75.81% of mothers in Maricopa County.

All racial/ethnic groups were below the county average (1999) for the percent of mothers who initiated PNC during the first trimester in the Garfield Neighborhood (1996 to 1999). The HP 2000 and HP 2010 objectives for mothers entering PNC during the first trimester were identical (90%), and no racial/ethnic groups in the Garfield Neighborhood or Maricopa County reached the objective. The closest were Whites in Maricopa County, with 87.58% initiating PNC during the first trimester.



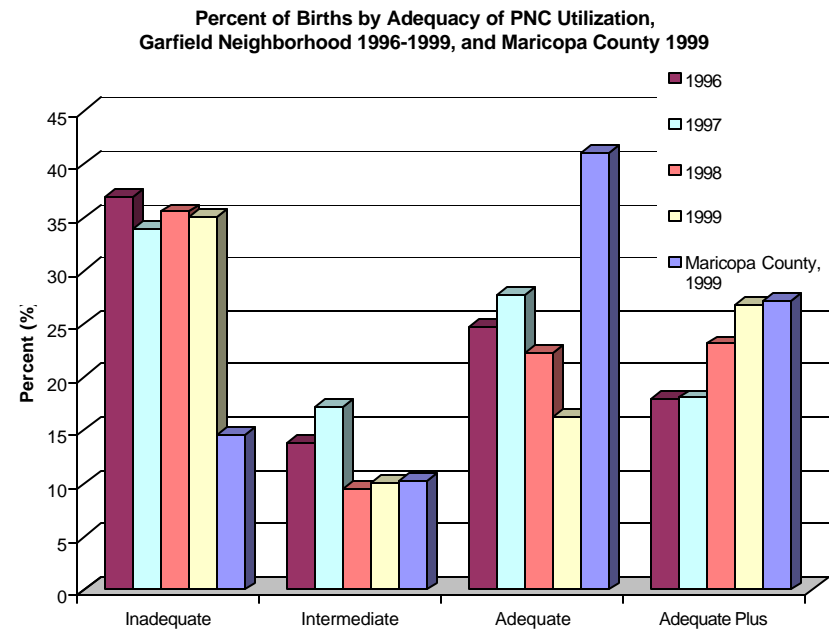
In contrast with both Maricopa County and the entire United States in 1999, prevalence of first trimester entry into PNC in the Garfield Neighborhood from 1996 to 1999 was stable across age groups. This is unusual, as the pattern normally shows mothers between the ages of 20 and 40 more frequently receiving early PNC than their older and younger counterparts. Over all age groups, mothers in the Garfield Neighborhood were less likely to have received first trimester PNC than Maricopa County or the United States.



Adequacy of prenatal care utilization (APNCU) among expectant mothers was determined using the APNCU index⁹. This index characterizes the adequacy of PNC by using the month of initiation and appropriate number of visits depending

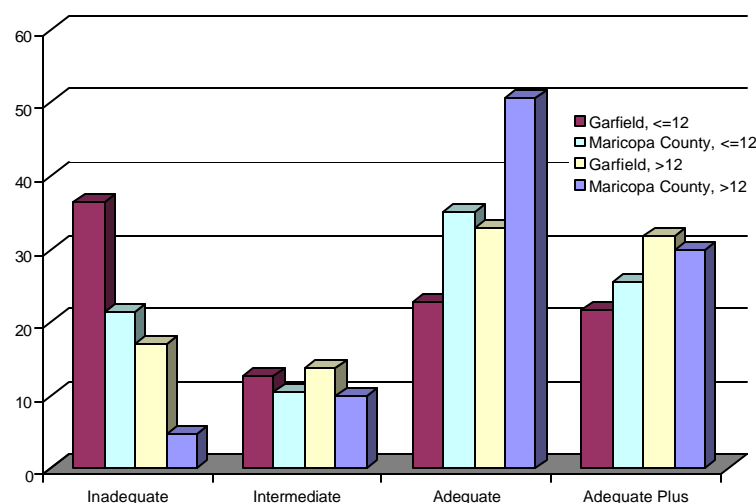
on the month of PNC initiation and gestational age at birth. The APNCU index does not assess the quality of PNC and does not adjust for risk conditions of the expectant mother. It only assesses PNC utilization.

Women in Garfield utilized prenatal care less than women in the county as a whole. During 1999 in Garfield, 44.19% of women received adequate or adequate plus prenatal care, whereas 68% of women in Maricopa County received adequate or adequate plus prenatal care. More than 35% of women in Garfield received inadequate prenatal care. The percent of women receiving adequate plus prenatal care in Garfield increased from 1996 to 1999 to a percentage similar to women residing in Maricopa County.



Both in the county and in the Garfield Neighborhood, a higher proportion of residents with more than a twelfth grade education received adequate prenatal care than those with a twelfth grade education or less. The difference between mothers with 12 years of education or less and mothers with more than 12 years of education in Garfield was much less than in Maricopa County, due to a small number of births to mothers with more than 12 years of education.

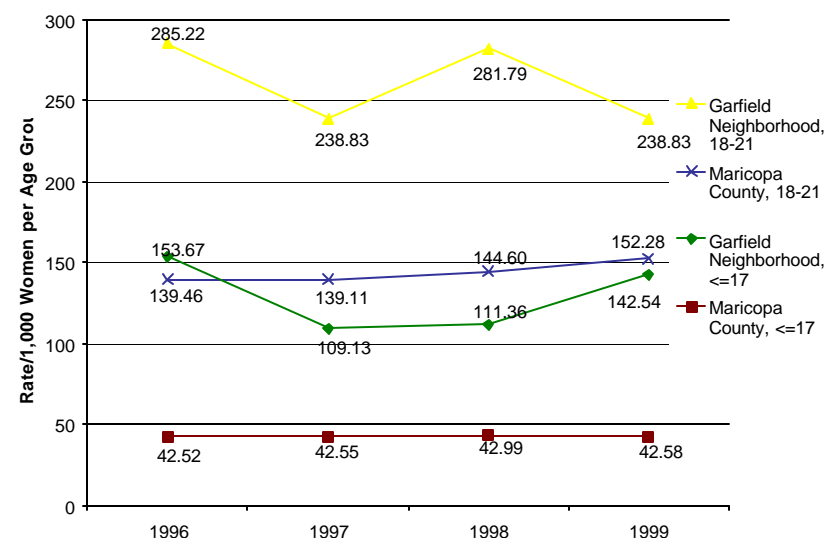
Percent Distribution of Births by Adequacy of PNC Utilization and Education, Garfield Neighborhood and Maricopa County, 1999



TEEN BIRTHS

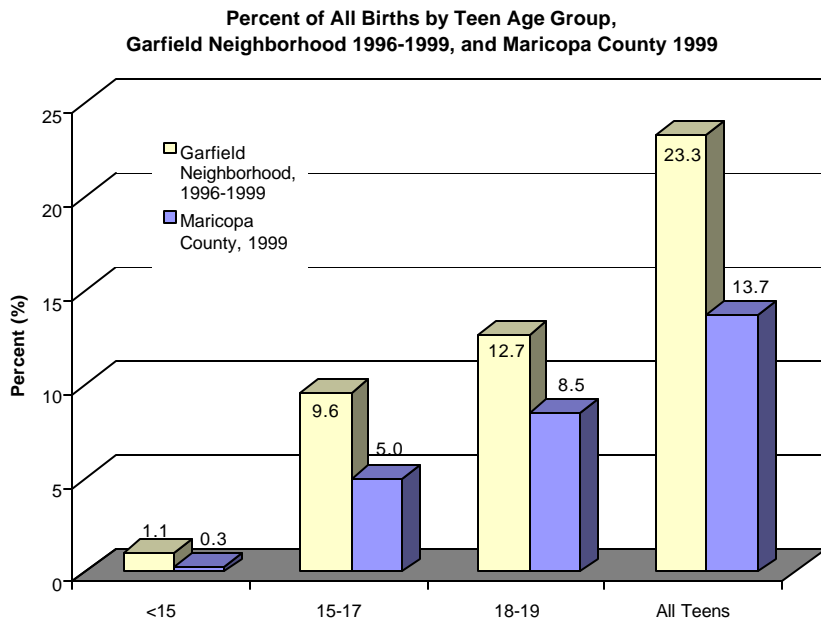
Teen fertility rates were calculated for females 17 years of age and younger and females 18 to 21 years of age, because these were the only young female population age groups available by census tract from the 1995 special census of Maricopa County¹¹. The Garfield Neighborhood had higher teenage fertility rates than Maricopa County among women 17 years of age and younger and 18 to 21 years of age. However, the fertility rate for teenage women in the Garfield Neighborhood decreased from 1996 to 1999, while the rate increased among teenage women in the county. This was true for the younger age group as well as the older teens.

Birth Rates by Select Maternal Age Groups, Garfield Neighborhood and Maricopa County, 1996-1999

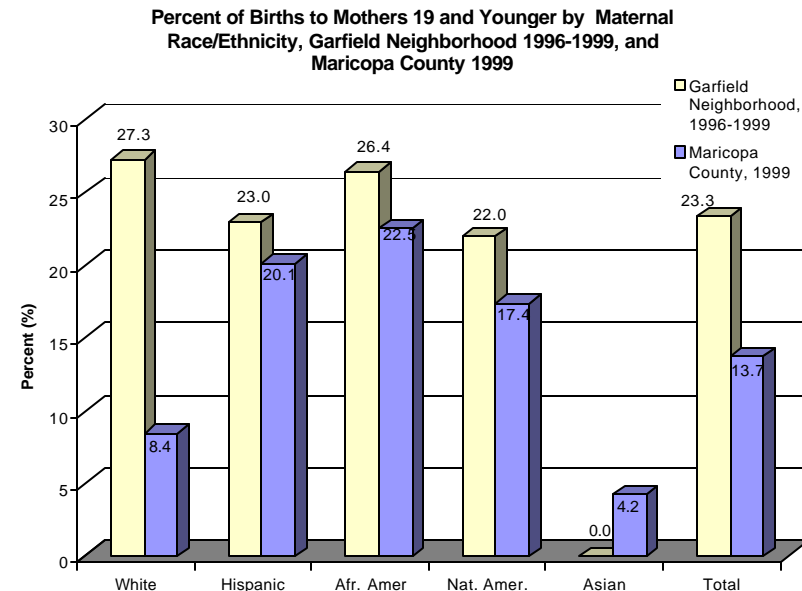


During the time period 1996 to 1999, the Garfield Neighborhood census tracts had 23.56% and 22.91% of births to teens (19 years of age and younger); neighboring census tracts had higher and lower percentages of teen births (Appendix A, Map 8). In all of Maricopa County during the same time period, 13.97% of births were to teens.

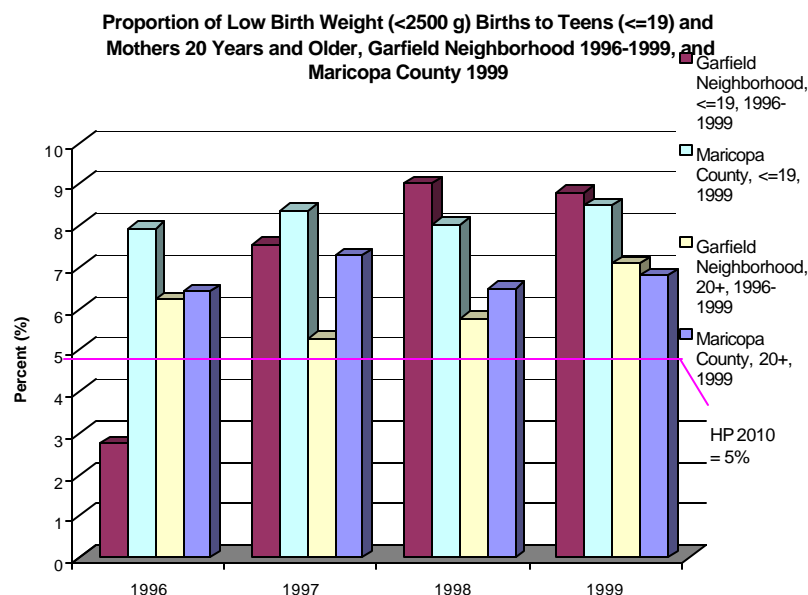
The Garfield Neighborhood had higher percentage of births to teens of all age groups from 1996 to 1999 than Maricopa County in 1999 (see following graph). There was an overall decrease in births to all teens from 1996 to 1999 in the Garfield Neighborhood and in Maricopa County (data not shown).



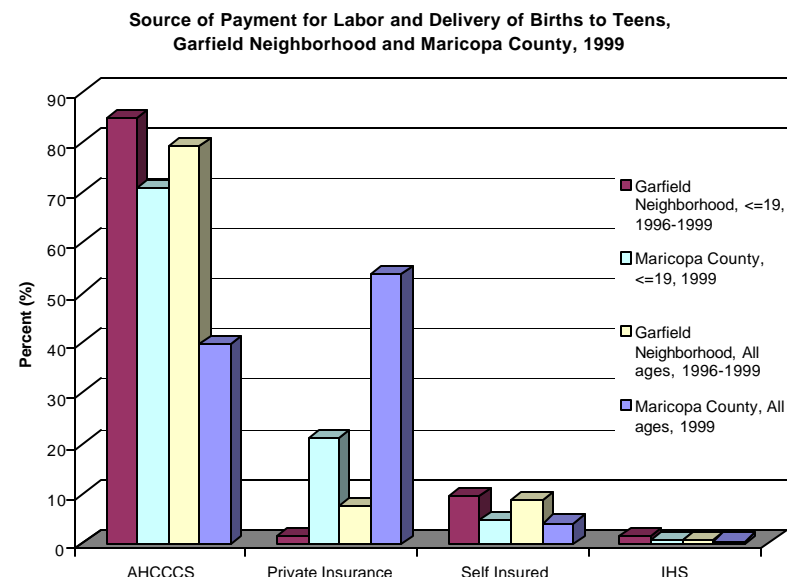
There were higher percentages of teen births to women in all racial/ethnic groups living in the Garfield Neighborhood (1996-1999) when compared to Maricopa County (1999). White females in the Garfield Neighborhood were notably more likely to have a teen birth than white females in Maricopa County.



During 1998 and 1999, there was a higher percentage of LBW births to teenage mothers in the Garfield Neighborhood than to any other age group or geographic region (see following graph).

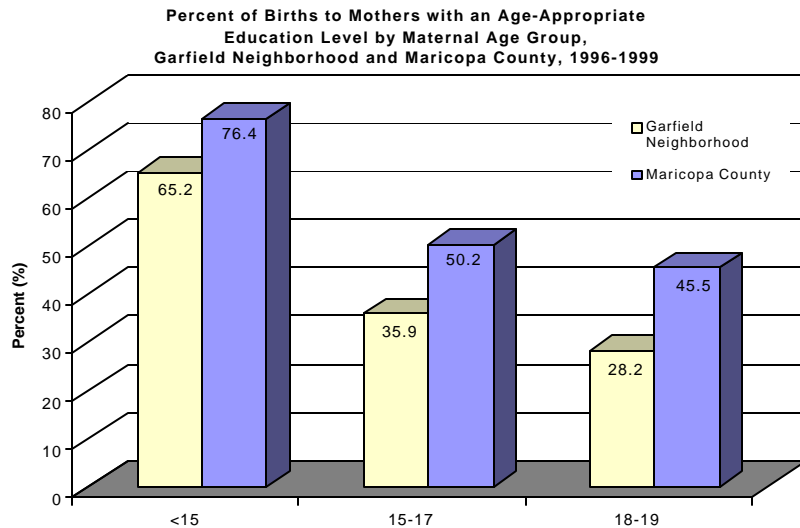


Teens residing in the Garfield Neighborhood (1996-1999) were more likely to have their delivery paid for by AHCCCS than teens residing in the county. in mothers of all ages in both the Garfield Neighborhood and Maricopa County (1999).



All births were dichotomized into two categories: delivered to a mother with an age-appropriate education level or not ¹⁰. An age-appropriate education level for an 11 year old was fourth grade (or higher) because the majority of people who are 11 years old are in fourth or fifth grade. The age-appropriate education level increased by one year for each year of age increase, such that the appropriate education level for mothers 18 or more years of age was twelfth grade.

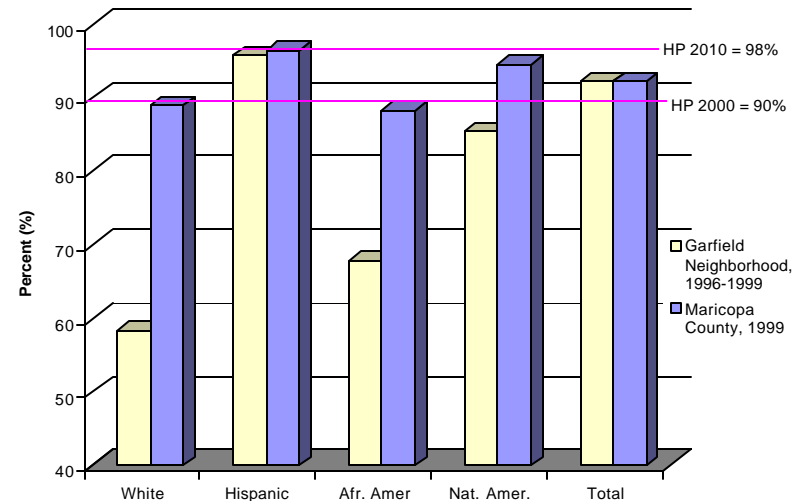
Among teen age groups, mothers 15 years of age and younger had the highest rate of achieving an age-appropriate educational level in both the Garfield Neighborhood (65.22%) and Maricopa County (76.35%). Mothers 18 and 19 years of age had the lowest rate of achieving an age-appropriate educational level in both areas.



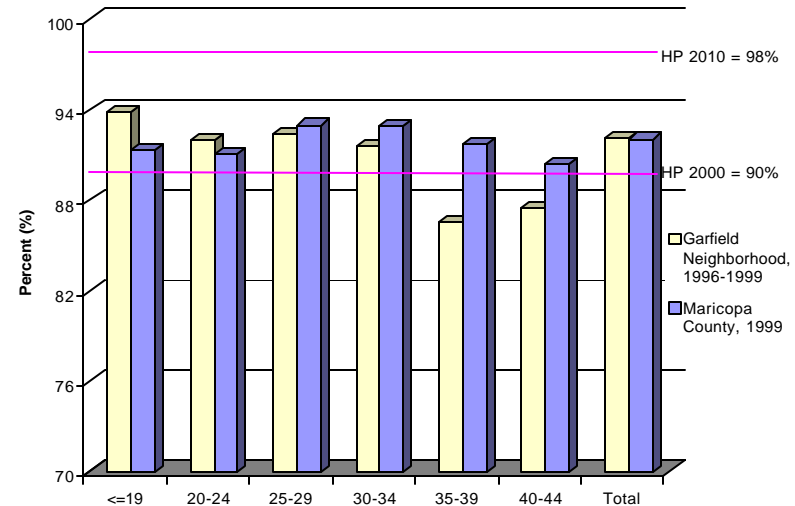
SUBSTANCE USE

In 1999, 93.26% of Garfield Neighborhood mothers and 92.06% of Maricopa County mothers abstained from tobacco during pregnancy. Hispanic and Native American mothers had the highest rates of tobacco abstinence. During 1996 to 1999, the rate of tobacco abstinence among African American mothers increased in a step-wise fashion (data not shown). Whites in the Garfield Neighborhood had the lowest percentage of mothers abstaining from tobacco.

Prevalence of Tobacco Abstinence by Maternal Race/Ethnicity, Garfield Neighborhood 1996-1999, and Maricopa County 1999

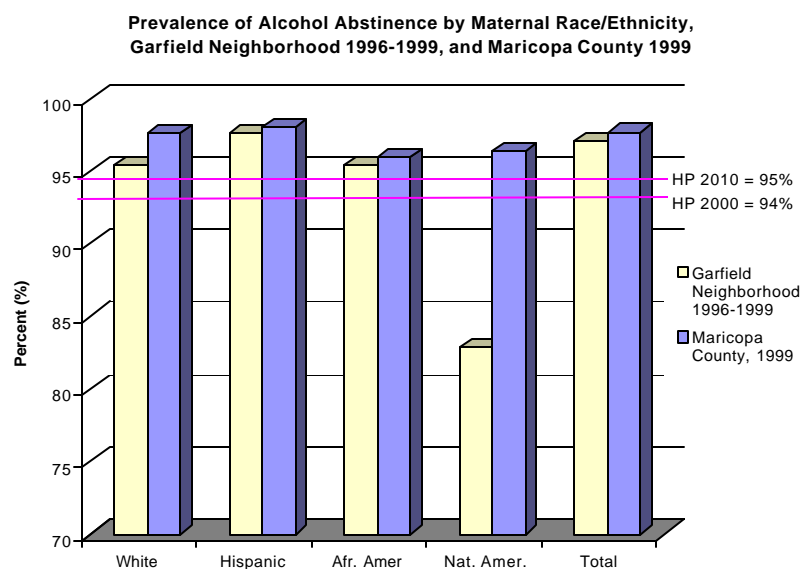


Prevalence of Tobacco Abstinence by Maternal Age Group, Garfield Neighborhood 1996-1999, and Maricopa County 1999

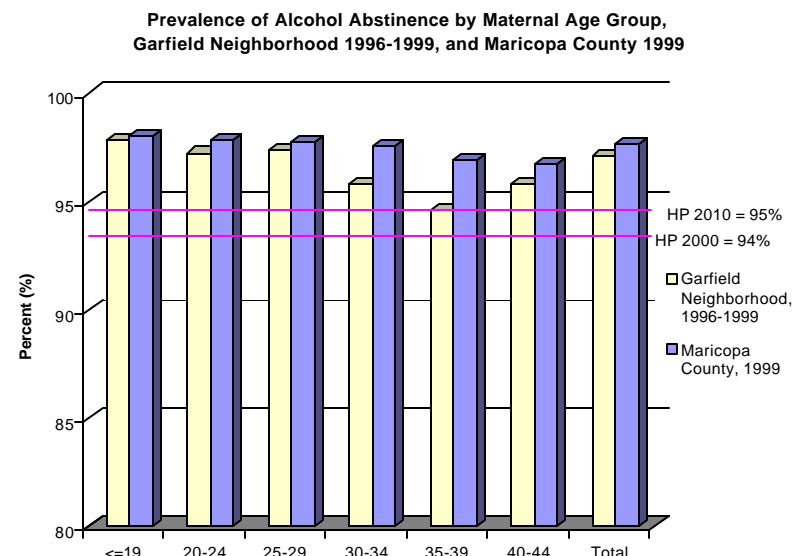


Mothers less than 19 years of age in the Garfield Neighborhood had the highest rate of tobacco abstinence compared to all other age groups in both the Garfield Neighborhood and Maricopa County. Mothers less than 19 years of age in Maricopa County had one of the lowest rates of tobacco abstinence among Maricopa County mothers (see graph on preceding page).

Appendix A, Map 9 shows the percent of mothers who abstained from tobacco during pregnancy by census tract.



In 1999, 98.13% of Garfield Neighborhood mothers and 97.69% of Maricopa County mothers abstained from alcohol during pregnancy. Hispanics had the highest percentage of births to mothers who abstained from alcohol; Native Americans had the lowest percentage. Among those of the Garfield Neighborhood, Whites, Hispanics, and African Americans achieved both the HP 2000 and HP 2010 objectives for alcohol abstinence during 1996 to 1999.



Among mothers of both the Garfield Neighborhood and Maricopa County, all age groups reached the HP 2000 objective for alcohol abstinence of 94%. Also, all ages groups in the Garfield Neighborhood, with the exception of mothers 35 to 39 years of age (94.64%), attained the HP 2010 objective for alcohol abstinence of 95%.

See Appendix A, Map 10 for prevalence of alcohol abstinence during pregnancy by census tract.